

Wetland Delineation Report For **Tubies Site** Straban Township Adams County, Pennsylvania Fall 2007 **RETTEW Project No. 07-07964-001**

Prepared for:

Mr. George Tubies 2390 York Road Gettysburg, PA 17325

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1.0 INTRODUCTION

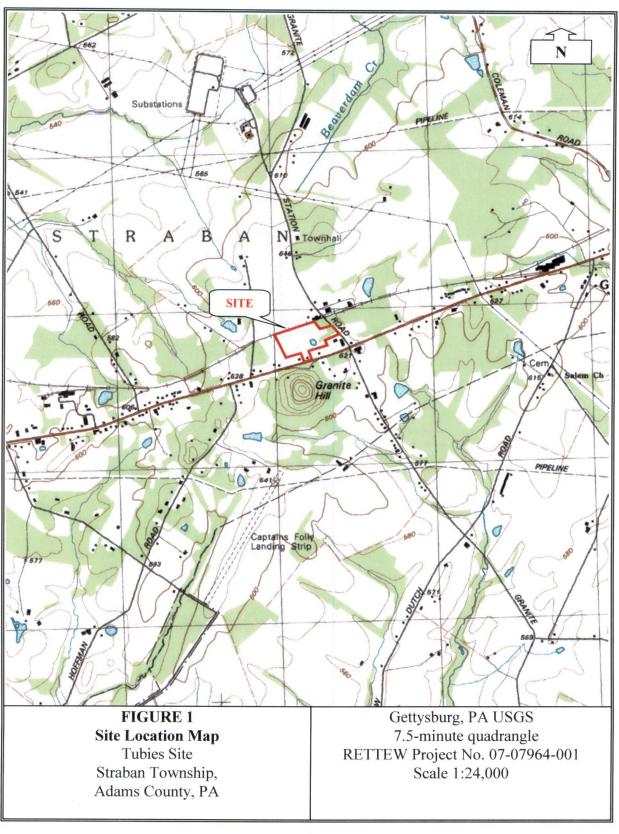
RETTEW Associates, Inc. (RETTEW) has prepared this wetland delineation report for Mr. George Tubies to document the locations and characteristics of jurisdictional wetland habitats and "waters of the United States"/"waters of the Commonwealth" that exist on his property at 2390 York Road, Gettysburg, PA (Tubies Site). The following information outlines the review of the published resource materials, existing site conditions, and results of the field investigation.

2.0 SITE DESCRIPTION

The Tubies Site is located in Straban Township, Adams County, Pennsylvania and appears on the Gettysburg, Pennsylvania U.S. Geological Survey (USGS) 7.5-minute quadrangle (Latitude N 39° 51' 15.1" and Longitude W 77° 09' 33.7") (Figure 1). The site is situated in an agricultural and residential area east of Gettysburg, PA along the Route 30 corridor. The 14.1 acre site was under scrutiny for a wetland disturbance that occurred to a large wetland swale on the eastern end of the site. The remainder of the site currently exists as periodically mowed fields and successional woods. A homestead is situated along York Road (Route 30) on the south side of the site. The wetland swale in question drains to the east, off-site via a culvert under Granite Station Road. The swale contributes to the Swift Run drainage. The Pennsylvania Code, Title 25, Chapter 93, Water Quality Standards assigns the Swift Run basin a quality designation of Warm Water Fishery (WWF). The Pennsylvania Fish and Boat Commission (PAFBC) does not list this drainage as one that supports wild trout reproduction. A small, man-made pond is situated around the center of the site, and captures stormwater from the site, and discharges into the aforementioned wetland swale. The proposed project involves restoring the disturbed wetland so the client can obtain necessary municipal approvals for an industrial building proposed for the northwestern corner of the site. The wetland investigation focused on the area around the disturbed wetlands, or the eastern two-thirds of the site.

3.0 METHODS

RETTEW used the Atypical Situations-criteria outlined in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) in conjunction with the 1992 Regulatory Guidance Letter. The routine criteria was not applicable due to the clearing of vegetation and regrading that had occurred on the site. This approach attempts to determine what vegetative community, soil characteristics, and hydrologic regime existed prior to the disturbance, and uses the results to identify and delineate wetlands. Transects were laid out perpendicular to the swale that was excavated to drain the wetlands on the site. Sample Points were located at every change in vegetative community, grade, or other significant feature along the transect. Data on soils, vegetation, and hydrology were collected on November 6, 2007 during an on-site investigation conducted by qualified wetland biologists. Dominant species were determined by visually estimating the percent cover of each species within a plot of approximately 30 ft. radius for trees, and a 5 ft. radius for shrubs and herbs and vines. Species nomenclature and wetland indicator status follows that of Reed (1988). Rhoads and Block (2000), Newcomb (1977), and Harlow (1957) were



the major taxonomic references used to identify vegetation species. Hydrophytic species are those wetland plants with indicator statuses of OBL (obligate wetland), FACW (facultative wetland), or FAC (facultative). Species listed as FACU (facultative upland) are more indicative of upland areas and generally do not occur in wetlands. Some species are not considered to be reliable indicators of wetland or upland conditions; these are designated as NI (no indicator). A plus or minus sign indicates the species tend to be at the drier (-), or wetter (+) end of its status category. Soils were examined by using a sharp-shooter shovel to a depth of 18 inches or refusal. Soil colors were determined using a Munsell Soil Color Chart. Hydric soils generally have chromas (the denominator of the fraction at the end of the soil color description) of 1 or 0 in unmottled soils, or of 2 or less in mottled soils. Mottling or redoximorphic concentrations are the apparent accumulation of Fe and Mn oxides within the soil profile. This feature is usually an indication of periodically, seasonally or permanently saturated soil conditions (Vepraskas 1994). Indicators of wetland hydrology (saturated or inundated soils) along with signs of previous prolonged inundation during the growing season were also noted at each sampling location. All wetland habitats were classified according to the U.S. Fish and Wildlife Service, Classification of Wetland and Deepwater Habitats of the United States (Cowardin et al. 1979). Field data sheets are located in Appendix A. Photographs of the wetlands and adjacent upland areas are provided in Appendix B.

3.1 Global Positioning System

RETTEW located the wetland/upland boundary, sample points and other features within the property using a Trimble Pro XH and GeoXT, Global Positioning System (GPS) receivers during the site visit on November 6, 2007. The instrument settings used were: a) Elevation Mask of 15 degrees to limit lowest angle of satellite acceptance to 15 degrees, b) Signal Noise Ratio Mask 6 to minimize weak signal strength, c) PDOP Mask 6 to control the geometry of satellite constellations, and d) Mode Setting Overdetermined 3D which requires a minimum of five satellites for acceptable readings. Logging interval was set at 1 second with typically a minimum of 60 readings collected at each point (Trimble Navigation 1994).

Data collected in the field were downloaded to a personal computer for differential correction using GPS Pathfinder Office software (Version 3.1). Correction files were obtained from a dedicated base station located in West Chester, PA. Mission planning, parameter settings, and post processing typically allow an accuracy of less than (<) 1 meter.

The precision of GPS collected data is subject to variation caused by canopy cover, atmospheric interference, time of day, and satellite geometry. GPS collected data should not be used in situations involving high property values, controversial projects, or in situations where legal questions may arise (Hook et al. 1995).

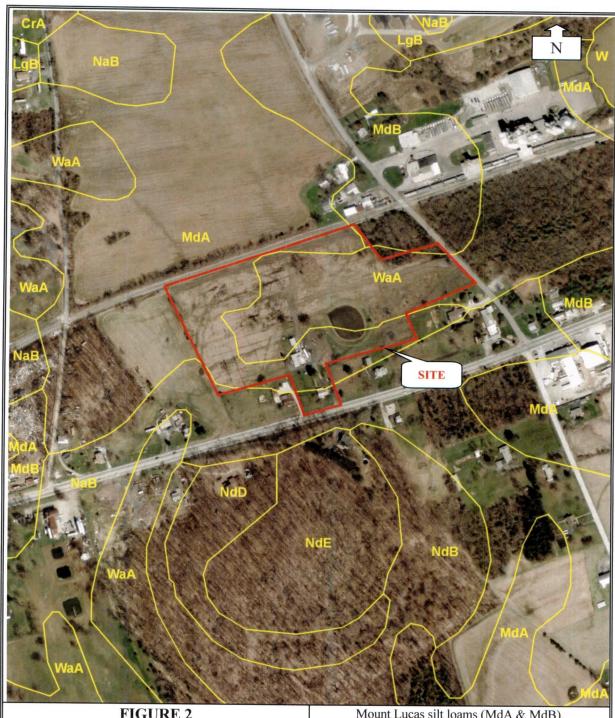


FIGURE 2 Soils Map Tubies Site

Straban Township, Adams County, Pennsylvania Mount Lucas silt loams (MdA & MdB), Neshaminy channery silt loam (NaB) & Watchung silt loam (WaA)

RETTEW Project No. 07-07964-001 Scale 1:5,000



FIGURE 3
National Wetlands Inventory Map
Tubies Site
Straban Township,
Adams County, Pennsylvania

RETTEW Project No. 07-07964-001 Scale 1:5,000

4.0 REVIEW OF EXISTING DOCUMENTATION

4.1 Topography and Drainage

The Tubies Site is comprised of relatively flat to gently sloping topography. Review of the Gettysburg, Pennsylvania USGS 7.5-minute quadrangle map and site plans revealed that the existing topography on the entire site ranges between 630 and 610 feet in elevation above mean sea level. All surficial drainage on the site is conveyed downslope to the east into the pond and wetland swale, or off-site via sheet flow.

4.2 Soil Survey

The Soil Survey of Adams County (USDA NRCS Soil Data Mart) indicates Mount Lucas silt loam, 0-8% slopes (MdA & MdB), Neshaminy channery silt loam, 3-8% slopes (NaB) and Watchung silt loam, 0-3% slopes (WaA) as the soil phases mapped within the Tubies Site (Figure 2). The Mount Lucas series consists of deep to very deep, moderately well to somewhat poorly drained soils found on uplands. The Neshaminy series consists of deep to very deep, well drained soils found on uplands. The Watchung series consists of very deep, poorly drained soils found on upland flats and in depressions. The Adams County Natural Resource Conservation Service lists Watchung silt loam a hydric soil, and the Mount Lucas and Neshaminy series as soils that have inclusions of Watchung hydric soils in depressions.

4.3 National Wetlands Inventory Map

A review of the U.S. Fish and Wildlife Service's National Wetland Inventory (NWI) Map for the Gettysburg, PA USGS 7.5-minute quadrangle indicates that one palustrine, open-water, intermittently exposed/permanent, diked/impounded (POWZh) wetland is located on the Tubies Site (Figure 3). This was identified as the small man-made pond situated on the site. Note that NWI maps are designed for general planning purposes only and typically do not show all the wetland or watercourse resources within any given area.

5.0 AGENCY COORDINATION

An online search of the Pennsylvania Natural Diversity Inventory (PNDI) database, conducted on December 10, 2007 indicated that there are no known impacts to threatened and endangered species expected from the proposed project. The search receipt is included in Appendix C. Agency coordination letters were also sent to the PAFBC and the U.S. Fish and Wildlife Service (USFWS) on December 10, 2007 to notify them of the project and ask for their concurrence of the PNDI results. Agency response letters have not been received to date, but will be forwarded upon arrival.

6.0 RESULTS AND DISCUSSION

The following descriptions provide a summary of each wetland area, including their location and characteristics. The site plan depicting the wetland boundaries, photographs and soil pit locations is provided in the Wetland Delineation Plan located in Appendix D.

6.1 Wetlands

RETTEW's investigation determined that two wetland areas totaling 1.107 acres exist within the area of investigation of the Tubies Site. The vegetation, soil characteristics, and wetland hydrologic indicators of Sample Points #1, 2, 4-10 & 12 were determined to be within a jurisdictional wetland.

WETLAND #1; PEM (1.002 acres)

Sample Points #1, 2 & 4-10 were located in the disturbed swale on the eastern side of the site. All of the points were located south of the stone driveway that accesses the site off of Granite Station Road. The vegetation and hydrology in this area were disturbed by the recent grading and clearing that had taken place prior to the site visit. See the sample point data sheets in Appendix A for the locations of each point. The dominant vegetative species included Quercus palustris (pin oak, FACW), Cirsium arvense (Canada thistle, FACU), Allium vineale (wild garlic, FACU-), Panicum dichotomiflorum (fall panicgrass, FACW-), Plantago lanceolata (narrowleaf plantain, UPL), Typha latifolia (broadleaf cattail, OBL), Juncus effusus (common rush, FACW+), Euthamia graminifolia (flat-top goldentop, FAC), Cornus amomum (silky dogwood, FACW), Juncus tenuis (poverty rush, FAC-), Rumex crispus (curly dock, FACU), Plantago major (common plantain, FACU), Erigeron annuus (eastern daisy fleabane, FACU), Solidago sp. (goldenrod), Polygonum sp. (smartweed), Setaria faberi (Japanese bristlegrass, UPL), Bidens frondosa (devil's beggartick, FACW), Echinochloa crus-galli (barnyardgrass, FACU), and Scirpus cyperinus (woolgrass, FACW+). The soil mapped at all the points was Watchung silt loam (WaA). See the data sheets in Appendix A for the soil descriptions of each point. Primary indicators of wetland hydrology included wetland drainage patterns and secondary indicators included oxidized rhizospheres within 12 inches and positive FAC-neutral tests. Based on the presence of hydric soil characteristics and primary and secondary indicators of wetland hydrology, Sample Points #1, 2 & 4-10 was determined to be within palustrine emergent (PEM) wetlands.

Sample Points #3 & 11 were located in disturbed upland areas adjacent the swale identified as Wetland #1. Similar to the wetland sample points, the vegetation and hydrology at these two points were disturbed. The dominant vegetative species were *Cirsium arvense*, *Rumex crispus*, *Plantago lanceolata*, *Setaria faberi*, *Physalis subglabrata* (ground-cherry, NI), and *Taraxacum officinale* (common dandelion, FACU-). The soil is mapped as WaA. See the data sheets in Appendix A for the soil descriptions of each point. Both points lacked any primary or secondary indicators of wetland hydrology. Based on the lack of dominant hydrophytic vegetation, lack of

hydric soil characteristics and lack of primary indicators of wetland hydrology, Sample Points #3 & 11 were determined to be within nonwetland areas.

WETLAND #2; PEM (0.105 acres)

Sample Point #12 was located in a fallow field area north of the constructed stone driveway on the north side of the site. The dominant vegetative species were *Scirpus cyperinus*, *Cornus racemosa* (grey dogwood, FAC-), *Agrimonia parviflora* (harvestlice, FAC), *Agrostis alba* (redtop, FACW), *Ulmus rubra* (slippery elm, FAC), *Setaria faberi* and *Vernonia noveboracensis* (New York ironweed, FACW+). The soil is mapped as WaA. The A-horizon had a soil matrix color of 10YR 3/1 with no redoximorphic concentrations at a depth of 0 to 18 inches. The soil profile consisted of a dry clay loam. Primary indicators of wetland hydrology included a wetland drainage pattern. Secondary indicators included oxidized rhizospheres within 12 inches and a positive FAC-neutral test. Based on the dominant hydrophytic vegetation, hydric soil characteristics and primary and secondary indicators of wetland hydrology, Sample Point #12 was determined to be within a PEM wetland.

Sample Point #13 was located within a graded wet swale that drains into the west side of the pond, around the center of the site. The dominant vegetative species was *Plantago lanceolata*. The soil is mapped as WaA. The A-horizon had a soil matrix color of 10YR 3/2 with no redoximorphic concentrations at a depth of 0 to 6 inches. The B-horizon had a soil matrix color of 10YR 3/2 with common, distinct 5GY 3/1 redoximorphic concentrations at a depth of 6 to 18 inches. The soil profile consisted of a dry clay loam. There were no primary or secondary indicators of wetland hydrology. Based on the lack of dominant hydrophytic vegetation and lack of primary or secondary indicators of wetland hydrology, Sample Point #13 was determined to be within a nonwetland area.

6.2 "Waters of the United States" / "Waters of the Commonwealth"

RETTEW's investigation determined that no jurisdictional stream channels exist on the Tubies Site. The wetland swale identified on the site as Wetland #1 drains off the site to the east and contributes to the Swift Run drainage. The Pennsylvania Code, Title 25, Chapter 93, Water Quality Standards assigns the Swift Run basin a quality designation of Warm Water Fishery (WWF).

7.0 CONCLUSIONS

RETTEW identified two wetlands containing 1.107 acres within the area of investigation on the Tubies Site. The soil pit sample points and wetland flags were located in the field and plotted on project mapping.

Wetland #1 is identified as a palustrine emergent (PEM) wetland. This wetland includes a swale that drains the pond located around the center of the site. Wetland #1 has undergone significant disturbance and is the subject of the violation that occurred on the property. Resolution of the

violation includes restoring this wetland. Wetland #1 drains off-site to the east, through a culvert under Granite Station Road. Wetland #1 contains 1.002 acres within the site.

Wetland #2 is identified as a PEM wetland that is located in a low-lying area within a fallow field north of the driveway on the north side of the site. The wetland continues offsite to the east and contains 0.105 acres within the area of investigation.

Wetlands, man-made ponds, and stream channels, intermittent or perennial, are regulated by the United States Army Corps of Engineers (USACOE) and the Pennsylvania Department of Environmental Protection (PADEP) and any encroachments, fills, or crossing of these areas will require the proper State and Federal permits. Data on which this report is based are on file at RETTEW Associates' Lancaster, PA office.

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8.0 DISCLAIMER

The terms "wetlands" and "waters of the United States"/"waters of the Commonwealth" as used in this report are RETTEW's interpretation of state and federal laws concerning wetland and watercourse identification.

The definition and delineation of wetlands on any specific site are subject to interpretation by various public agencies. RETTEW will, to the best of its ability, accurately delineate the wetlands limits based on current regulations and the firm's experience with the public agencies. RETTEW cannot, however, guarantee that the public agencies involved will concur with those limits. A joint agreement of the United States Army Corps of Engineers and the Pennsylvania Department of Environmental Protection is required for a jurisdictional wetland boundary to be set in the Commonwealth of Pennsylvania. All wetland boundaries in this report are estimates of the jurisdictional wetland limits unless otherwise stated.

All mention of regulations and laws are RETTEW's interpretation of state and federal regulations and/or laws, and should not be taken as legal advice.

9.0 LITERATURE CITED

- Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitats of the United States*. US Department of Interior, Fish and Wildlife Service, Biological Services Program FWS/OBS-79/31, 103 pp.
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10.0 REGULATORY DEFINITIONS

Waters of the United States: are "all waters which are subject to the ebb and flow of the tide and also, waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds of which the use, degradation, or destruction of could affect interstate or foreign commerce". (U. S. Army Corps of Engineers 33 CFR 328.3)

Waters of the Commonwealth: are "All water-courses, streams, bodies of water and their floodways wholly or partly within of forming part of the boundary of this Commonwealth". (PA Department of Environmental Protection Chapter 105.1)

Watercourses: are "Any channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow". (PA Department of Environmental Protection Chapter 105.1)

Perennial streams: have flowing water year-round during a typical year. The water table is located above the streambed for most of the year. Groundwater is the primary source of water for stream flow. Runoff from rainfall (or snowmelt) is supplemental source of water for stream flow (CFR March 9, 2000, page 12898).

Intermittent streams: have flowing water during certain periods of the year and June not have flowing water during dry periods. Groundwater provides water for stream flow. Runoff from rainfall or snowmelt is supplemental source of water.

Ephemeral streams: have flowing water only during and for a short duration after precipitation events in a typical year. They are located above the water table year-round and groundwater is not a source of water for the stream.

Drainage ditches: a linear excavation or depression constructed for the purpose of conveying surface runoff or groundwater from one area to another.

Wetlands: are "Those areas that are inundated or saturated by surface or groundwater at a frequency and duration to support, and that under normal circumstances do support the prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas." (Environmental Protection Agency 40 CFR 230.3 and U. S. Army Corps of Engineers 33 CFR 328.3)

Nonwetlands: are uplands and lowland areas that are neither deepwater aquatic habitats, wetlands, nor other special aquatic sites. They are seldom or never inundated, or if frequently inundated, they have saturated soils for only brief periods during the growing season, and, if vegetated, they normally support a prevalence of vegetation typically adapted for life only in aerobic soil conditions.

APPENDIX A FIELD DATA SHEETS

APPENDIX A FIELD DATA SHEETS

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Percentage OBL, FACW, or	FAC specie	s (excludin	g FA(C-) _	O Result	s of FAC-ne	utral Tes	t _ O	
			SO	ILS					Managar Sangar
Mapped Series/Phase: We	A Taxono	omic Subgr	oup: _	*-	Typ. 6 A	Baqualfo			
Horizon/Depth	Matrix (Color (mois	st)		Mottle Color	(moist)		3.4.41	
AOF						(moist)	Ahu	Mottle andance/Co	ntroot
A 0-5 B 5-R	10418				-		7100		mirasi
	1671	4 4/10							
Mapping unit listed on Histic epipedon presen Sulfidic Odor? Gleyed or Low-Chrom Mapped Series/Phase C	t? a colors? Confirmed in				High Organi Organic Stre Aquic/peraqu	it list on the Concretions c A-horizon aking/Spodiuic moisture	? in Sandy : Horizon regime?	Soils?	list?
Remarks: dry sil	+ logn								
Depth of ground surface Inunc Primary Indicators:Sec	lation (inche	c) ()	DRO Depth more		~	Water in so	il Pit (inc	thes) 7/8	
Observed Inundation Saturated in Upper 12 in Water Marks Drift Lines Sediment Deposits Wetland Drainage Patter				FAC Hyd	ter-stained Le C-neutral Tes	st I Data (site s		nes	
JURISDI	CTIONAL	L DEȚEI	RMII	NAT	TION ANI	RATIO	VALE		-
Hydrophytic Vegetation Presen Hydric Soils Present? Vetland Hydrology Present?	t? Yes V Yes V Yes	No No	Is this	samp		within a wetl		□ No Ø	
Additional comments:		-		1		5			
- upslope of s	role, for	wet a	ind	che	macterist	ics, unlik	'e 9 m	ded sua	le

We answer to you.						(0,00)		
Field Investigator(s)	TAT DO	- 0			1 ,			
Field Investigator(s) Project Site: Clouds State: FA County Sample Location (Description)	THE BOX	SPR		Date:	11/6/07			
State: PA County	- TUDE S	ite		Sample ID:	\$# 4			
Sample Location (Descript	· Adame	5			Township:	Str	rabam :	
r = = = = = (Bescript	1vc)	th pod	0+ 5	ile				
Check Primary Wetland De Has the Plant Community, Do Normal Environmental Is the area a potential probl Describe Disturbance/Prob	Conditions em area? Y	Prevail at the	nis San	ple Location? Y	of Engineers I es:	Method	w/1992 G	uidance
		DOMINA	ANT	VEGETATIO	N			
PLANT SPECIE	S	IND.	ST		NT SPECIES		DID	
1		ST.		LA	INT SI ECIES		IND. ST.	STR
1. Cirsium gruense		FACU	14	6.			51.	
2. Alling wreale		FACU-	11	7.				
3. Plantago lanceolat.	4	UPL	H	8.				
4. Tuha latifolia (cor	evs)	081	1	9.				
n com				10.				
Percentage OBL, FACW, or	FAC specie	es (excludin			s of FAC-neur	tral Test	25	
Mannad Cari (D)			SO.	ILS				
Mapped Series/Phase:	Taxon	omic Subgr	oup: _	TYPIZ A	1 baqualfs			
Horizon/Depth		Color (mois						
		Color (IIIOIS	51)	Mottle Color	r (moist)		Mottle	
A 0-10	lox	R 3/1				Abu	ndance/Co	ontrast
e 10-18		YR 311		104R 4/1-			2	
		,		15 1/-	,	FIC	/	
Mapping unit listed or Histic epipedon preser Sulfidic Odor? Gleyed or Low-Chron Mapped Series/Phase	nt? na colors? Confirmed in			Mapping un Sesquioxide High Organ Organic Stre Aquic/peraq Alpha, Alph	Concretions? ic A-horizon in eaking/Spodic uic moisture r	n Sandy Horizon egime?	Soils?	list?
(1)	100,103	TIX	nno	LOGY				
Depth of ground surface Inun Primary Indicators: Se	dation (inche condary Indi	(29	Denth	LOGY to Free Standing required):	g Water in soil	Pit (inc	hes) <u>7/8</u>	
Observed Inundation Saturated in Upper 12 Water Marks Drift Lines Sediment Deposits Wetland Drainage Patter	nches			Oxidized Rhizo Water-stained L FAC-neutral Te Hydrologic Field	eaves st		es	
Hibichi	CTIONA	I Dimin	T) H #Y	AT A PER CONT				
JUNISDI	CHONA			NATION AN				
ydrophytic Vegetation Preser ydric Soils Present? ^v etland Hydrology Present?	Yes	No		sample location		nd? Yes	☑ No□	
riyarology riesent?	Y es	No	Wetlar	nd Classifications	:			
dditional comments:				Wet #1				
the disturbed area.	lack of	netan)	chan	of the city	I	٦.		

BANISM

We answer to you.	JOINE OF	SILE	WEIL	AND DATA	SHEET	(6/05)		
Field I well to you.								
Field Investigator(s) Project Site: State: PA County Sample Location (Descript	AF, BJK, JA	K		Date:	11/6/07			
Project Site: George	tulie site)		Sample ID:	S#			
State: County	: Alama				Townshin	0		
Sample Location (Descript	ive): neg	0.10- 1	- 10	f	i ownship.		raban	
Check Primary Wetland De Has the Plant Community, Do Normal Environmental Is the area a potential probl Describe Disturbance/Probl	elineation Guida Soils, or Hydro Conditions Pre	ance Man logy Beer vail at this	ual:/ n Disturb s Sample	_1987 Corps of the	of Engineers es: No es: No	Method	w/1992 G	uidance
	DO	MINA	NT VE	GETATIO	N			
PLANT SPECIE	S	IND. ST.	STR		NT SPECIES	3	IND.	STR
1. Junius effuses	F	ACW+	Н	6.			ST.	
2. Eithamis acardicalis	4	FAC	H	7.				
3. Carnus ammomum		ACW	H	8.				
4. Juneus tenuis	F	AC-	H	9.				
5.	1		r	10.				
Percentage OBL, FACW, or	FAC species (excluding	FAC-)	75 Results	s of FAC-neu	utral Tes	t_66	
Mapped Series/Phase: We	A Taxonom	ic Subgro	up: Ty	pic Albaq	nd Fo			
Horizon/Depth	Matrix Col	or (moist))	Mottle Color	(moist)		Mottle	
1				00101	(moist)	Ahu		antroat
A 0-11	104R	21,		-		Abundance/Contrast		
B41618	1441	311						
		,						
Mapping unit listed or Histic epipedon preser Sulfidic Odor? Gleyed or Low-Chrom Mapped Series/Phase of Remarks: Depth of ground surface Inun- Primary Indicators: Sec	na colors? Confirmed in Fi	eld?	OROLO Centh to		Concretions' c A-horizon aking/Spodic ic moisture Dipyridal T	? in Sandy c Horizon regime? Pest	Soils? n?	2
	ondary marcur	015 (2 01 1	nore req	uired):/				
Observed Inundation Saturated in Upper 12 i Water Marks Drift Lines Sediment Deposits Wetland Drainage Patter		- - - - R	W	kidized Rhizos ater-stained Le C-neutral Tes drologic Field	eaves t		nes	
JURISDI	CTIONAL	DETED	MINIA	TION ANTE	DATE	ATAY -		
Hydrophytic Vegetation Present Hydric Soils Present? Wetland Hydrology Present? Additional comments:	Yes N		s this san	enple location volumes	within a wetla	and? Yes		
comments.		Wett	-	V V	11 16	2. F 11	hora	

We answer to you.							(0/03)		
Field Investigator(s)	OF RTH	701c							
Project Site:	1, 00/2)	JOK			Date:	11/6/0	5		
State: PA County:	1100 5	ite.			Sample ID:	S# 6			
Sample Location (Descripti	Dogo	5	1707			Township:	5	+ 16560	7
Field Investigator(s) Project Site: George State: PA County: Sample Location (Description of the County)	ve): N-	entral pr	w or	0+	5, to , 90	i +a Sto	ne dri	e	
Check Primary Wetland De Has the Plant Community, S Do Normal Environmental (Is the area a potential proble Describe Disturbance/Proble	lineation G Soils, or Hy Conditions	uidance Ma drology Be Prevail at th	nual:_ en Dis nis San	turbe	1987 Corps of the desired of the des	of Engineers	Method	l w/1992 G	duidance
		DOMINA	ANT	VE	GETATIO	N			
PLANT SPECIES	i	IND. ST.	ST	R		NT SPECIES	S	IND. ST.	STR
1. Rumox crispus 2. Plantago rajor 3. Cirsium givense 4.		FACU	1		6.			51.	
2. Plantago major		FACU-	H		7.				
4. Cirsium GIVENSO.		FACU	H		8.				
5.					9.				
					10.				
Percentage OBL, FACW, or Mapped Series/Phase:			00	TT C				st _ <i>O</i>	
Horizon/Depth	Matrix	Color (mois	st)	Τ	Mottle Color	(moist)		Mottle	-
				1	2.101110 00101	(moist)	Abı	undance/C	
A 0-18	1046	2/1			*		110		ontrast
Mapping unit listed on Histic epipedon presen Sulfidic Odor? Gleyed or Low-Chrom Mapped Series/Phase C	t? a colors?				Mapping un Sesquioxide High Organi Organic Stre Aquic/peraq Alpha, Alpha	Concretions c A-horizon aking/Spodi uic moisture	in Sandy c Horizo regime?	y Soils?	l list?
Remarks:	1+ loan								
Depth of ground surface Inunc Primary Indicators: Sec	lation (inch	es) O	DRO Deptl r more	h to F	Free Standing	Water in so	oil Pit (in	ches)_ 7/2	Š
Observed Inundation Saturated in Upper 12 in Water Marks Drift Lines Sediment Deposits Wetland Drainage Patte			Rema	_ Wa _ FA _ Hyo	idized Rhizos ter-stained L C-neutral Tes drologic Field	eaves st		rhes	
JURISDI	CTIONA	L DETE	RMI	NA'	TION AND	DRATIO	NAIE		
Hydrophytic Vegetation Present? Yes No Is this sample location within a wetland? Yes No Wetland Hydrology Present? Yes No Wetland Classifications:									
Additional comments:				We	+#1				
- sparse vegetation	due to	previou	s g	(0)	19				

We answer to you.						()		
Field Investigator(s) Project Site: 60070 State: PA County Sample Location (Descript	AE BYL	201-		-	1 7			
Project Site: 600 400	TIL DEL	JPK		Date:	1/6/07			
State: PA County	· were s	+6		Sample ID:	S# 7			
Sample Location (Descript	ive):	55			Township:	5+	-1660	
i — Canton (Descript	Nova	h-centra	region	of site	adito dr	TURNAL		
Check Primary Wetland Do Has the Plant Community, Do Normal Environmental Is the area a potential probl Describe Disturbance/Problem	Soils, or Hy Conditions I	drology Bed Prevail at the	nual: //en Disturb	_1987 Corps	of Engineers	Method	w/1992 G	uidance
		DOMINA	NT VE	GETATIO)N			
PLANT SPECIE	S	IND. ST.	STR		NT SPECIES	S	IND. ST.	STR
1. no vegetation				6.			51.	
3.				7.				
4.				8.				
5.				9.				
Percentage ODI DAGW	E. C.							
Percentage OBL, FACW, or	rac specie	s (excludin	g FAC-)	M/A Result	ts of FAC-nei	utral Tes	t N/A	
			SOIL					
Mapped Series/Phase: _ W	A Tayon	omic Subor	SOIL.	5	A IL			
TY (S)	TUXOII	Subgi	oup;	146.00	1918 que!	FJ		
Horizon/Depth	Matrix (Color (mois	t)	Mottle Color	r (moist)		Mottle	
A 0-8						Abu	indance/Co	ntrast
P8-18	10 Y							
	10 1	9/1		10 yir 5	16	/	=/n	
Mapping unit listed or Histic epipedon preser Sulfidic Odor? Gleyed or Low-Chrom Mapped Series/Phase (nt? na colors?			_ Sesquioxide _ High Organ _ Organic Stre _ Aquic/peraq	it list on the perfections in A-horizon eaking/Spodicuic moisture a Dipyridal T	? in Sandy c Horizo: regime?	Soils?	list?
_	_	HY	DROLO)GV				
Depth of ground surface Inum Primary Indicators: Sec	dation (inche condary Indi	(2)	Donth to	D	g Water in so	il Pit (inc	ches) <u>2/8</u>	6
Observed Inundation Saturated in Upper 12 inches Water Marks Drift Lines Sediment Deposits Wetland Drainage Pattern Oxidized Rhizospheres within 12 inches Water-stained Leaves FAC-neutral Test Hydrologic Field Data (site specific) Remarks: Name								
JURISDI	CTIONA	L DETE	RMINA	TION AN	D D ATTO	AT A T TO		
Hydrophytic Vegetation Preser Hydric Soils Present?	nt? Yes Yes ✓	No No	Is this san	nple location	within a wetl		No No	
Wetland Hydrology Present?	Yes	No	Wetland (Vetland Classifications: PEM				
Additional comments: Wettall Classifications: 127								

- No Vegetation, disturbed oned od. To diversi unded onea

We answer to you.							
Field Investigator(s) Project Site: State: LA County Sample Location (Descript	OF BIL 7	04		D-t-			
Project Site:	, ask	10		Date:			
State: A County	· Al.	Kenn		Sample ID: S# §			
Sample Location (Descript	ive).	1	(Township:	St	rabem	
1 station (Descript	near	certer	0+ 514				
Check Primary Wetland Do Has the Plant Community, Do Normal Environmental Is the area a potential probl Describe Disturbance/Prob	elineation G Soils, or Hy Conditions I em area? Y	uidance Mardrology Bee	nual:/en Disturt	1987 Corps of Engineers ped? Yes: No e Location? Yes: N	Methodo:	l w/1992 G	uidance
		DOMINA	NIT VI	CETATION			,
PLANT SPECIE	S	IND.	STR	EGETATION			
		ST.	SIK	PLANT SPECIES	S	IND.	STR
1. Euthamia graminifoli	G	FAC	1-1	6.		ST.	
2. Erigeron annus 3. Carny annonum		FACU	H	7.			
3. Cornys grimomum		FACW	54	8.			
4. Solidago Si		Nepulsers	14	9.			
J.				10.			
Percentage OBL, FACW, or	FAC specie	es (excluding			utral Tes	st _50	
Mapped Series/Phase:	A Taxon	omic Subgro	SOIL	Typic Albaqual	Fs		
Horizon/Depth		Color (mois		Mottle Color (moist)	Abi	Mottle Abundance/Contrast	
A U-18	104	93/1		Million	7.01	- unuance/C	ontrast
Mapping unit listed or Histic epipedon preser Sulfidic Odor? Gleyed or Low-Chrom Mapped Series/Phase	nt? na colors?			Mapping unit list on the Sesquioxide Concretions High Organic A-horizon Organic Streaking/Spodic Aquic/peraquic moisture Alpha, Alpha Dipyridal T	? in Sandy c Horizo regime?	y Soils?	list?
Remarks:noist	5.74 /cl	1001					
		HY	DROLO	OCV			
Depth of ground surface Inun- Primary Indicators: Sec	dation (inche condary Indi	(2)	Donth to	Enga Ct - 1' III	il Pit (in	ches) //	-
Observed Inundation Saturated in Upper 12 i Water Marks Drift Lines Sediment Deposits Wetland Drainage Patte			\sqrt{F}	xidized Rhizospheres withi ater-stained Leaves AC-neutral Test ydrologic Field Data (site s		hes	
JURISDI	CTIONA	L DETE	RMINA	TION AND RATIO	ATA T TO		
Hydrophytic Vegetation Preser Hydric Soils Present?		No 1		mple location within a wetl		/	
Wetland Hydrology Present?	Yes		Wetland (Classifications: FEM/35			

Additional comments:

We answer to you.						(3,30)		
Field Investigator(s)	non Carlo	01e			1			
Field Investigator(s) Project Site: 6 core, c State: PA County Sample Location (Descript	15,6JK,5	PK		Date:	11/6/07			
State: PA County	1 Ubie Sit	€		Sample ID:	S# 9			
Sample Location (Descript	· Adam	75			Township:	5.	traban	
		4		2111 (A	VIVI CIA	11 11		
Check Primary Wetland De	elineation Gr	idance Me		100=				
Has the Plant Community,	Soils, or Hy	drology Be	en Dist	1987 Corps	of Engineers	Method	d w/1992 G	uidance
Do Normal Environmental	Conditions I	Prevail at th	nia Cam	ple Location? V	es: N	D:	/	
Is the area a potential probl	em area? Yo	es: 🖊 1	No:	r = = = = = = r	cs. [] N	0: [4		
Describe Disturbance/Problem	lematic Feati	ires: weth	ind viol	ation regardin	9			
PLANT SPECIE	5	DOMIN	ANT	VEGETATIO				
	O	IND. ST.	STI	R PLAT	NT SPECIES	5	IND.	STR
1. Polygonum s		51.	1-4	6.			ST.	
Les (1)11 / colota un	m	FACW-		7.				
3. Rulex Crisas		FACU	H	8.				
4.				9.				
				10.				
Percentage OBL, FACW, or	FAC specie	s (excludin	g FAC	-) So Result	c of EAC	1.70		
			0-110) Kesuit	s of FAC-ne	utral les	st <u>>0</u>	
			SOI	LS				
Mapped Series/Phase:	A Taxono	omic Suber	Oun.	Tail All	16,			
Horizon/Depth				19/1- 1116	ougue Ti			
110112011/Depth	Matrix (Color (mois	st)	Mottle Color	r (moist)		Mottle	
A 0-11	1040	7/1		*		Abı	undance/Co	ontrast
11-18	104R				-1		_	
V	, ,	7//		2.5 Y	5/6	-	FID	
2.6								
Mapping unit listed on	a local hydr	ic soil list?		Mapping un	it list on the	national	hydric soil	ligt?
Histic epipedon preser Sulfidic Odor?	it?		-	Sesquioxide	Concretions	?		HSt?
Gleyed or Low-Chrom	a colors?		-	High Organi	ic A-horizon	in Sand	y Soils?	
Mapped Series/Phase (Confirmed in	Field?	-	Organic Stre	eaking/Spodi	c Horizo	m?	
		Tiora,	-	Aquic/peraq Alpha, Alpha	uic moisture	regime?		
Domest.				Aipila, Aipila	a Dipyridai j	est		
Remarks: dy	yen !	eye, lo	000					
Donth of	,	HY	DRO	LOGY				
Depth of ground surface Inune Primary Indicators: / Sec	dation (inche	(s)	Depth	to Free Standing	Water in so	il Pit (in	ches) > 8	<
Primary Indicators:/_ Sec	condary Indi	cators (2 or	more i	required): 2)	4
Observed Inundation				Ovidina I DI				
Saturated in Upper 12 i	nches			Oxidized Rhizos Water-stained L	spheres withi	n 12 inc	hes	
Water Marks			·V	FAC-neutral Tes	st			
Drift Lines Sediment Deposits				Hydrologic Field	d Data (site s	pecific)		
Wetland Drainage Patte	ern					1)		
Dramage Talle	411		Remar	ks:				
JURISDI	CTIONA	L DETE	DMIN	NATION ANI	D.D. I. MYO.			
Hydrophytic Vegetation Preser								
Hydric Soils Present?	ıt? Yes√ Yes√		Is this	sample location	within a wetl	and? Ye	s No	
Wetland Hydrology Present?	Yes	TNUL						
	- 30[7]		" ctiail	d Classifications	·_rem			
Additional comments:								

We answer to you.							(
Field Investigation											
Project City	AF, BJK,	JPK.		Date	e:	11/6/07					
Project Site: George	Tulie si	te		Sam	ple ID:	S# 10					
State: PA County	: Adam	5				Township:	Cı	1-1-			
Field Investigator(s) Project Site: George State: PA County Sample Location (Descrip	tive): Sh/.	end of s.	Le .	1 1.	-4. 1		J+	Vaban			
Choole Delicory		The state of the s	1	1001	(West	d wet su	619				
Check Primary Wetland D Has the Plant Community, Do Normal Environmental Is the area a potential prob	Conditions	Prevail at th	ic San	nlo I ac	7 Corps Y ation?	s of Engineers Yes: N Yes: N	Methodo:	d w/1992 Gr	uidance		
Describe Disturbance/Prob											
						9					
PLANT SPECIE	C	DOMINA									
TEMPLE SILEN		IND. ST.	ST	R	PLA	ANT SPECIES	S	IND.	STR		
1. Erigoron connus	P	FACU	H	6	('			ST.			
2. Stairing taberii		WPL	11	6.	KIP	is officer	V5	FACW+	4		
3. Po cum dicolerflore	m	FACW-	4	8.							
4. B. dekis Fradosco		FACW	H	9.							
5. Echirochlor crus-go		FACU	H	10.							
Percentage OBL, FACW, o	r FAC speci	es (evoludin									
Percentage OBL, FACW, o	i The speci	es (excludin	g FAC	-) 50	_ Resul	lts of FAC-ne	utral Tes	st 50			
			60.	IT C							
Manned Series/Phase: W	n A T		SO	ILS	Λ			^			
Mapped Series/Phase: W	laxon	iomic Subgr	oup: _	TYP	- 4	Har Alba	quall	-1			
Horizon/Depth		Color (mois									
•		color (mors	()	10101	tie Colo	or (moist)		Mottle			
A 0-5	10 4/8	3/1					Abı	undance/Co	ntrast		
125-18	2.5			7	.5Y	-1					
		1 //			137	2/6		16			
Mapping unit listed of Histic epipedon prese Sulfidic Odor? Gleyed or Low-Chron Mapped Series/Phase	nt? na colors?			Ses Hig Org Aqı	quioxide h Organ anic Str iic/perac	nit list on the e Concretions nic A-horizon reaking/Spodi quic moisture ha Dipyridal T	? in Sandy c Horizo regime?	y Soils?	list?		
Remarks:		. 1 /			-						
Remarks: most v	exy crank	1 4/100	am								
Penth of around C	1.1.	HY	DRO	LOGY							
Depth of ground surface Inum Primary Indicators: Se	dation (inch	es)	Depth	to Free	Standin	g Water in so	il Pit (in	ches) 7/8			
Primary Indicators: Se	condary mu	icators (2 or	more	required):	-		,			
Observed Inundation Saturated in Upper 12	inches			Oxidize Water-s	ed Rhizo	ospheres withi	in 12 inc	hes			
Water Marks				FAC-ne	utral Te	est					
Drift Lines						ld Data (site s	necific)				
Sediment Deposits							pecific				
Wetland Drainage Patt	ern		Remar	ks:							
JURISD	ICTIONA	L DETE	RMI	VATIO	NAN	D RATIO	NIAYE				
ydrophytic Vegetation Prese		_						/			
ydric Soils Present?	No										
etland Hydrology Present?	tland Hydrology Present? Yes No Yes No										
dditional comments:	- 00[]/		v cual	u Classi	iication	S: [[] []					
l			Wet	#1							
			E (5) /	5.9							

- w/ disturbed smale

RWYRW

ROUTINE ONSITE WETLAND DATA SHEET (6/05)

We answer to you. Field Investigator(s) Project Site: Sample ID: County: Township: Straban Sample Location (Descriptive): West and of site, with disturbed/fill area Check Primary Wetland Delineation Guidance Manual: _____1987 Corps of Engineers Method w/1992 Guidance Has the Plant Community, Soils, or Hydrology Been Disturbed? Yes: 🗸 Do Normal Environmental Conditions Prevail at this Sample Location? Yes: No: No: Is the area a potential problem area? Yes: \square No: \square Describe Disturbance/Problematic Features: higher disturbed area / fill | gooding DOMINANT VEGETATION PLANT SPECIES IND. STR PLANT SPECIES IND. STR . ST. ST. LIPL 6. 2. Physalis Subhlabuate 7. Plantago 100000 UPL 8. Taraxacun afficiale FACH-5. 10. Percentage OBL, FACW, or FAC species (excluding FAC-) ______ Results of FAC-neutral Test ______ SOILS Mapped Series/Phase: WAA Taxonomic Subgroup: Type Albaqualfs Horizon/Depth Matrix Color (moist) Mottle Color (moist) Mottle Abundance/Contrast HO-10 10415 4/3 B10-18 10 YR 416 10 42 Mapping unit listed on a local hydric soil list? __ Mapping unit list on the national hydric soil list? Histic epipedon present? Sesquioxide Concretions? Sulfidic Odor? High Organic A-horizon in Sandy Soils? Gleyed or Low-Chroma colors? Organic Streaking/Spodic Horizon? Mapped Series/Phase Confirmed in Field? __ Aquic/peraquic moisture regime? Alpha, Alpha Dipyridal Test Remarks: HYDROLOGY Depth of ground surface Inundation (inches) O Depth to Free Standing Water in soil Pit (inches) >/ Primary Indicators: _____ Secondary Indicators (2 or more required):_ Observed Inundation Oxidized Rhizospheres within 12 inches Saturated in Upper 12 inches ____ Water-stained Leaves Water Marks FAC-neutral Test Drift Lines _ Hydrologic Field Data (site specific) Sediment Deposits Wetland Drainage Pattern Remarks: JURISDICTIONAL DETERMINATION AND RATIONALE Hydrophytic Vegetation Present? Yes No V Is this sample location within a wetland? Yes No Hydric Soils Present? Yes No Wetland Hydrology Present? Yes No Wetland Classifications:

Additional comments:



We answer to you.									
Field Investigator(s) Project Site:	AF RTL TO	01-		Detri					
Project Site:	+ 1 -			Date: 1	116/07				
Project Site: Ceauty State: PA County Sample Location (Descript	· MI	42		Sample ID:	S#/2				
Sample Location (Descript	iva): Hoan	15			Township:		Strabau	7	
Sample Location (Descript	IVE). Ne	and of site	No	drive way	fallow	f. old			
Check Primary Wetland De Has the Plant Community, Do Normal Environmental Is the area a potential probl Describe Disturbance/Probl	Conditions I	Prevail at the	is Sample	_1987 Corps oped? Yes Location? Y	of Engineers es: No es: N	Methodo:	l w/1992 G	uidance	
		DOMINA	NT VE	EGETATIO	NT				
PLANT SPECIE	S	IND. ST.	STR		NT SPECIES	5	IND.	STR	
1. Scirpus eyermus		FAC W+	11	6 5	<u></u>	,	ST.		
2. CORNUS (crey) Valer	2016	FAC -	Sh	6. Sotorio	a toberi	<i>i</i>	UPL	14	
3. Agrimonia parvillara		MAC	1-1	7. Vervor	ia nove to.	actiss	FACW+	H	
4. Agrostis alba		FACW	H	9.					
5. Umus rung		FAC	SH	10.					
Percentage OBL, FACW, or	FAC specie	s (excludin	g FAC-)	71 Results	s of FAC-ner	utral Tes	st 60		
Mapped Series/Phase:				Typic A	16=qual	6			
Horizon/Depth	Matrix	Color (mois	st)	Mottle Color	(moist)	A 1	Mottle		
A0-18	10403	3/1				Abı	undance/Co	ontrast	
							9		
Mapping unit listed or Histic epipedon preser Sulfidic Odor? Gleyed or Low-Chron Mapped Series/Phase	nt?			Mapping uni Sesquioxide High Organi Organic Stre Aquic/peraqu Alpha, Alpha	Concretions c A-horizon aking/Spodic tic moisture	? in Sandy c Horizo regime?	y Soils?	list?	
Remarks:dry (lay 100	n.							
	F	HY	DROLO)GV					
Depth of ground surface Inun Primary Indicators: Se	dation (inche condary Indi	es) 0	Denth to	Fron Standing	Water in so	il Pit (in	ches) 7/8	-	
Observed Inundation Saturated in Upper 12 Water Marks Drift Lines Sediment Deposits Wetland Drainage Patter			FA	xidized Rhizos ater-stained Lo AC-neutral Tes ydrologic Field	eaves		hes		
JURISDI	CTIONA	LDETE	DMINIA	TION ANI	Dime	AT 1 = -			
Hudronhytia V							/		
Hydrophytic Vegetation Present Hydric Soils Present?	Yes	NOL		nple location v		and? Ye	s No		
Wetland Hydrology Present?	Yes	No	Wetland (Classifications	PEM/SC				

Additional comments:

We+ #2

We answer to you.												
Field Investigator(s)	TOF STI	l Jek		Date:								
Field Investigator(s) Project Site: George Those Site State: PA County: Adams Sample Location (Descriptive): Wolf pond, Show				Sample ID: S#13								
State: PA County:	Adams											
Sample Location (Description	ve): Wol	Brad	1111	Township:	JAGGE M							
1 (Coorpus	, ().	1) WALL	graves source	2							
Check Primary Wetland De Has the Plant Community, S Do Normal Environmental G Is the area a potential probled Describe Disturbance/Probled	lineation Gu Soils, or Hy Conditions I	drology Be Prevail at th	nual: X en Disturt nis Sample	1987 Corps of Engineers ped? Yes:	Method w/1	992 Gu	idance					
DOMINANT VEGETATION												
PLANT SPECIES		IND. ST.	STR	PLANT SPECIES		ND. ST.	STR					
1. Plantage lanceslata 2.		4UPL	M	6.								
3.				7.								
4.			-	8.								
5.			-	9.								
Percentage OBL, FACW, or FAC species (excluding FAC-) OResults of FAC-neutral Test O												
Mapped Series/Phase:	A Tayon	omic Suba	SOIL	S Aller IC	2							
	1 4 X O II	onne subg.	roup:	140.6 1113 aguatis								
Horizon/Depth Matrix Color (Color (moi	ist)	Mottle Color (moist)	Mottle							
A 0-6	10 YR 3/2			Abundance/Contrast								
A 0-6 B 6-18	IDYR		14207	56 Y 3/1	CIP							
		0 / 400			1/100							
Mapping unit listed or Histic epipedon preser Sulfidic Odor? Gleyed or Low-Chron Mapped Series/Phase	nt? na colors? Confirmed	in Field?	?	Mapping unit list on the Sesquioxide Concretion High Organic A-horizor Organic Streaking/Spod Aquic/peraquic moisture Alpha, Alpha Dipyridal	s? a in Sandy So ic Horizon? e regime?		list?					
Remarks: Dry Very	vieyej											
Depth of ground surface Inun Primary Indicators:Se	dation (incl condary Inc	nes) 0	PDROL Depth to or more re	o Free Standing Water in se	oil Pit (inche	s) 7/8	-					
Observed Inundation Saturated in Upper 12 inches Water Marks Drift Lines Sediment Deposits Wetland Drainage Pattern			Oxidized Rhizospheres within 12 inches Water-stained Leaves FAC-neutral Test Hydrologic Field Data (site specific) Remarks:									
JURISD	ICTION	AL DET	ERMIN	ATION AND RATIO	NALE							
Hydrophytic Vegetation Prese Hydric Soils Present? Wetland Hydrology Present?	ent? Yes[Yes[No No O	Is this s	ample location within a well Classifications:	tland? Yes		Y					
Additional comments:	U	ν	n gring 2		2.9 4	and the	1					

APPENDIX B SITE PHOTOGRAPHS



Photo 1 – Facing southeast from near Sample Point #1, viewing Granite Station Road and the culvert that drains Wetland #1.



Photo 2 - Facing east from the man-made swale that drains Wetland #1. This bare earth/ recently graded swale is typical of the habitat found within Wetland #1.



Photo 3 - Facing east from the eastern pond berm, viewing the top of the swale included within Wetland #1.

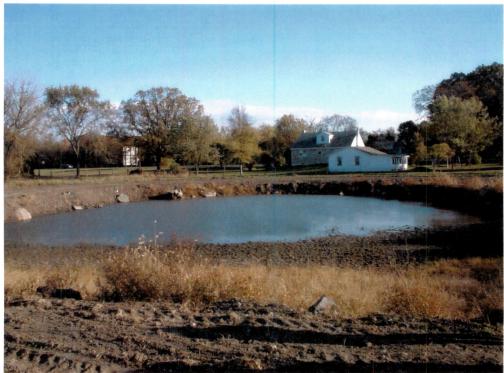


Photo 4 - Facing south from around the center of the site, viewing the pond that drains into Wetland #1.



Photo 5 – Facing east from around the center of the site, viewing the existing stone lane and disturbed uplands that lie to the north of Wetland #1.



Photo 6 – Facing west, viewing the upper, northwestern extent of Wetland #1, adjacent the existing stone driveway.



Photo 7 – Facing north, viewing the low-lying area identified as Wetland #2 that is situated in a fallow field on the north side of the site.



Photo 8 – Facing west from the pond, viewing the graded, upland swale that drains the surrounding uplands into the pond.

APPENDIX C AGENCY COORDINATION

PNDI Project Environmental Review Receipt

Project Search ID: 20071210120004 Project Name: Tubies Site Date: 12/10/2007 8:36:32 AM

Project Location



Project Name: Tubies Site

Project Search ID: 20071210120004

Date: 12/10/2007 8:36:18 AM

of Potential Impacts: 0 Jurisdictional Agency: (store, gas station, factory)

Project Category: Development, New commercial/industrial development

Project Location

Decimal Degrees: 39.85474 N, -77.15799 W

Degrees Minutes Seconds: 39° 51' 17.1" N, 77° 9' 28.8" W

Lambert: 235830.52134859, 312375.26794334 ft

ZIP Code: 17325

County: Adams

USGS 7.5 Minute Quadrangle ID: 860 Township/Municipality: STRABAN

Quadrangle Name: GETTYSBURG

Project Area: 14.1 acres

Location Accuracy

environmental review. The creator/owner of the Project Review Receipt is solely responsible for the project location and thus the correctness of Project locations are assumed to be both precise and accurate for the purposes of the Project Review Receipt content.

0 Known Impacts

Under the Following Agencies' Jurisdiction: None

PNDI Project Environmental Review Receipt

Project Search ID: 20071210120004 Project Name: Tubies Site Date: 12/10/2007 8:36:32 AM Pennsylvania Natural Diversity Inventory (PNDI) records do **NOT** indicate any known impacts on special concern species and resources within the project area. DEP requires a signed copy of this receipt with permit applications being submitted as indication that an environmental review has been conducted and completed. See DEP PNDI policy at www.naturalheritage.state.pa.us for more information.

Based on the information you provided, no further coordination is required by the Pennsylvania Game Commission, the Pennsylvania Fish and Boat Commission, or the Pennsylvania Department of Conservation and Natural Resources with regard to special concern species, natural communities, or outstanding geologic features. This response does not reflect potential agency concerns regarding impacts to other ecological resources, such as wetlands.

Based on the project-specific information you provided, no impacts to federally listed, proposed, or candidate species are anticipated. Therefore, no further consultation under the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.* is required with the U.S. Fish and Wildlife Service. Because no take of federally listed species is anticipated, none is authorized. For a list of species that could occur in your project area (but have not been documented in PNDI), please see the county lists of threatened, endangered, and candidate species. A field visit or survey may reveal previously undocumented populations of one or more threatened or endangered species with a project area. If it is determined that any federally listed species occur in your project area, the U.S. Fish and Wildlife Service requires that you initiate consultation to identify and resolve any conflicts. This response does not reflect potential Fish and Wildlife Service concerns under the Fish and Wildlife Coordination Act or other authorities.

These determinations were based on the project-specific information you

provided, including the exact project location; the project type, description, and features; and any responses to questions that were generated during this search. If any of the information you provided does not accurately reflect this project, or if project plans change, DEP and the jurisdictional agencies require that another PNDI review be conducted.

This response represents the most up-to-date summary of the PNDI data files and is good for one(1) year from the date of this PNDI Project Environmental Review Receipt.

DISCLAIMER

The PNDI environmental review website is a preliminary environmental screening tool. It is <u>not</u> a substitute for information obtained from a field survey of the project area conducted by a biologist. Such surveys may reveal previously undocumented populations of species of special concern. In addition, the PNDI only contains information about species occurrences that have actually been <u>reported</u> to the Pennsylvania Natural Heritage Program.

TERMS OF USE

Upon signing into the PNDI environmental review website, and as a condition of using it, you agreed to certain terms of use. These are as follows:

The web site is intended solely for the purpose of screening projects for potential impacts on resources of special concern in accordance with the instructions provided on the web site. Use of the web site for any other purpose or in any other way is prohibited and subject to criminal prosecution under federal and state law, including but not limited to the following: Computer Fraud and Abuse Act of 1986, as amended, 18 U.S.C. ŧ 1030; Pennsylvania Crimes Code, ŧ 4911 (tampering with public records or information), ŧ 7611 (unlawful use of computer and other computer crimes), ŧ 7612 (disruption of service), ŧ 7613 (computer theft), ŧ 7614 (unlawful duplication), and ŧ 7615 (computer trespass).

PNDI Project Environmental Review Receipt Project Search ID: 20071210120004

Project Name: Tubies Site Date: 12/10/2007 8:36:32 AM The PNHP reserves the right at any time and without notice to modify or suspend the web site and to terminate or restrict access to it.

The terms of use may be revised from time to time. By continuing to use the web site after changes to the terms have been posted, the user has agreed to accept such changes.

This review is based on the project information that was entered. The jurisdictional agencies and DEP require that the review be redone if the project area, location, or the type of project changes. If additional information on species of special concern becomes available, this review may be reconsidered by the jurisdictional agency.

PRIVACY and SECURITY

This web site operates on a Commonwealth of Pennsylvania computer system. It maintains a record of each environmental review search result as well as contact information for the project applicant. These records are maintained for internal tracking purposes. Information collected in this application will be made available only to the jurisdictional agencies and to the Department of Environmental Protection, except if required for law enforcement purposesâ€"see paragraph below.

This system is monitored to ensure proper operation, to verify the functioning of applicable security features, and for other like purposes. Anyone using this system consents to such monitoring and is advised that if such monitoring reveals evidence of possible criminal activity, system personnel may provide the evidence to law enforcement officials. See Terms of Use.

Print this Project Review Receipt using your Internet browser's print function and keep it as a record of your search.

Signature:

12-10-07

Date:

Project applicant on whose behalf this search was conducted:

APPLICANT

Contact Name: Mr. George Tubies

ne: Mr. George I ubic 2390 York Road

Address:

City, State, Zip: Gettysburg, PA 17325

Phone:

Email:

PERSON CONDUCTING SEARCH (if not applicant)

Contact Name: RETTEW- JON KASITE

Address: 3020 Columbia Ave,

City, State, Zip: Lancaster PA 17603

717-394-3721

Phone:

Email: jkssitz @rettew. Com

The following contact information is for the agencies involved in this Pennsylvania Natural Diversity Inventory environmental review process. Please read this entire receipt carefully as it contains instructions for how to contact these agencies for further review of this particular project.

PNDI Project Environmental Review Receipt Project Search ID: 20071210120004 Project Name: Tubies Site Date: 12/10/2007 8:36:32 AM

APPENDIX D WETLAND DELINEATION PLAN

ONS

Timothy A. Falkenstein - Mr. Falkenstein has degrees in Forestry and Environmental Resource Management from the Pennsylvania State University and a Masters Degree in Biology from Shippensburg University. He has attended numerous professional training courses including Wetland Delineation Methodology, Wetland Soils and Hydrology, Identification of grasses, sedges and rushes, and Threatened and Endangered species of New Jersey. In his 15 years of environmental consulting he has conducted numerous wetland delineations at sites throughout Pennsylvania, Ohio, Maryland, Virginia, West Virginia, Delaware, New York, New Jersey, and Tennessee. He regularly conducts field meetings with the USACOE, PADEP, USFWS and other agencies to secure Jurisdictional Determinations and develop appropriate permit applications. He routinely prepares and submits general and joint permit applications for clients including private developers, and municipalities and state infrastructure projects. He has conducted and participated in rare species searches for state and federally listed plants and animals, including Clemmys muhlenbergii. His Masters thesis entitled "Vascular Plant Communities of the Mount Cydonia Ponds in the Michaux State Forest Natural Area, Franklin County, Pennsylvania" involved plant community classification, topographic descriptions, and soil chemical analysis of 17 temporary autumnal/vernal pools within the Michaux State Forest Natural Area.

Jonathan P. Kasitz – Mr. Kasitz has a bachelor's degree in Biology/Ecology from Millersville University. He has used the 1987 and 1989 *Corps of Engineers Wetland Delineation Manual* for numerous field delineations in PA, MD and NY. He has completed the U.S. Army Corp of Engineers' Wetland Delineation Course. He has also been trained in several different stream assessment protocols, both in the eastern U. S. as well as in the Rocky Mountain region. Mr. Kasitz participated in internships with the PA Department of Environmental Protection in their Water Quality division and with the PA Department of Military and Veteran Affairs as a Biology Tech at Fort Indiantown Gap. He has worked with various government agencies including the National Park Service at Yellowstone NP and the US Forest Service in Colorado. He has performed biological surveys for many different threatened and endangered species across the country. He also completed honors research on the effects of ponds on stream nitrate levels in Lancaster County while at Millersville.

Joel M. Esh – Mr. Esh has an Associate in Specialized Technology Degree in Computer Aided Drafting and Design from York Technical Institute and 5 years of experience at RETTEW. In the past year, he has transferred from the transportation engineering services to the natural sciences group. With transportation engineering, he has directed data collection, prepared traffic engineering analysis, and completed PENNDOT plans involving right-of-way, traffic signals and highway occupancy permits,. With natural sciences, he has assisted in wetland delineations using the 1987 *Corps of Engineers Wetland Delineation Manual* in PA and NY, prepared clearance documents involving USFWS, PGC, and PAFBC, and prepared wetland location maps and restoration plans.